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WORK PLAN OF TECHNICAL ADMINISTRATIVE DIVISION,
HUNGARIAN HEAVY INDUSTRY ADMINISTRATION,
1 JANUARY 1949 - 30 JUNE 1949

The task of the section is to bring about cooperation and coordination between units within the Heavy Industries Administration and with other industry administrations and organizations at home and abroad.

The work plan of the section covers the following items as regards domestic scheduling and cooperation:

1. Motor Vehicles

Plans call for an annual production of 5,000 trucks and busses. Because of the great volume of work required, 4 million man-hours a year, this work will be done on a cooperative basis, with parts being made at individual plants and assembly concentrated at one point. Target dates set for preparation of separate phases of the work plan are 30 January 1949 and 15 February 1949. In charge: Jeno Mizser.

2. Excavators

For the 4-year period beginning with 1950, plans call for production of 200 3.5-cubic-meter excavators with a total approximate weight of 140 tons. This amounts to five units a month requiring 190,000 man-hours of work, which will be split up between various plants. Target date for completion of plan is 1 March 1949. In charge: Jeno Mizer.

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ARMY	<input checked="" type="checkbox"/> AIR	<input checked="" type="checkbox"/> FBI	

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3. Material Handling Equipment

Various types of carts and hand trucks are included in the production plan to provide efficient transport within and between plants and for export. According to present data and plans, this job will require 60,000 man-hours of work in 1949 and 240,000 man-hours in 1950. Magyar Waggon has been designated to do this work. Target date: 25 February 1949. In charge: Endre Uherezsky.

4. Cylinder Blocks

The Ganz Company will be relieved of some phases of motor and agricultural machine manufacture. Cylinder block manufacture is assigned to EMAG (First Hungarian Agricultural Machine Plant). Ganz will discontinue the manufacture of its own type of cylinder blocks. EMAG will continue to make its own type of diagonal cylinder blocks until it goes over to the new type. Certain Ganz machinery will be transferred to EMAG. Target dates: 15 January 1949, 15 February 1949, and 15 March 1949. In charge: Jeno Miser.

5. Agricultural Machinery

Manufacture of agricultural machinery will be taken away from the Manfred Weiss and Magyar Waggon and transferred to other plants in connection with the planned manufacture of motor vehicles, excavators, and material-handling equipment at the above-named plants. Manfred Weiss is now working on horse-drawn ploughs, and horse-drawn hoes and the Magyar Waggon plant on tractor-drawn ploughs, harrows, and other small agricultural machines. Target dates: 10 February 1949 and 10 March 1949. In charge: Endre Uherezsky.

6. Stoves and Furnaces

Manufacture of stoves and furnaces is to be transferred from Manfred Weiss and Magyar Waggon to the Salgotarjan Machine-Building Plant and to Krolupper. Target date for drawing up plan: 25 February 1949. In charge: Endre Uherezsky.

7. Wire and Nail Manufacture

Until now, wire, nail, and bar manufacture has been disorganized, with monthly production as follows (in tons):

Salgotarjan	approx	2,400
Diosgyor	"	600
Small Budapest plants		
Stadler, Kollerich,		
Haidekker	"	30
Manfred Weiss Nail		
Factory	"	230

Discussions are in progress toward the concentration of this type of manufacture at Salgotarjan. Target dates: 5 February 1949 and 10 February 1949. In charge: Frigyes Lajta.

8. Screw Manufacture

At present, screws are being made at Magyar Waggon, Diosgyor, Manfred Weiss, Csavararugyar N. V. (State Screw Manufacturing Enterprise), and, to a smaller extent, at nonnationalized enterprises. All of these plants make large varieties of screws and much of their equipment is obsolete. Plans call for gradually stopping screw production at Manfred Weiss, for making only large-size screws at Diosgyor, and for dividing other screw production between Magyar Waggon and Csavararugyar. Target dates: 20 January 1949 and 25 February 1949. In charge: Ferenc Parago.

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9. Machine Tools

Machine tools are now being built at Manfred Weiss, Diogenor, and at certain plants operated by the General Machine Industry Center: Lampart, Budapest-Salgotarjan, Schlesinger, etc. In addition, 15 nonnationalized plants are also building a great variety of machine tools; the ten nationalized enterprises are building approximately 70 types of machine tools and the 15 nonnationalized plants are building approximately 30 types. Steps are to be taken to bring order into the situation. Target dates: 20 February 1949 and 5 March 1949. In charge: Dr Ferenc Farago.

10. Schedule of General Machine Industry Center Enterprises

There are 45 small and medium plants in this group, some of which work on tools and machine tools, others on agricultural machines. Most of the plants, however, are engaged in making general types of machines. The schedule of many enterprises is identical and many produce the same types of machines. Rationalization calls for combining certain enterprises and coordinating the work of the manufacturing branches. Target dates: 25 March 1949, 5 April 1949, and 1 May 1949. In charge: Dr Ferenc Farago.

11. Machine Building at the Ganz Car-Building Plant

Planned large-scale Diesel-motor construction at the Ganz Car-Building Plant stresses the urgency of transferring to other plants the manufacture of cylinder blocks, cooling machines, and crushing machines. The Rock Plant is being considered for the manufacture of cooling machines, but as yet no plant has been decided upon for the manufacture of crushing machines. Target dates: 15 February 1949 and 1 March 1949. In charge: Jeno Mizser.

12. Cooling Machines

In the past, cooling machines have been manufactured by the Rock Plant and by Ganz. The 1949 work program called for 11-million-forint production for Ganz and 10 million forints for Rock. For the reason given in point No 11, manufacture of cooling machines will henceforth be concentrated at the Rock Plant. Target date: 1 March 1949. In charge: Jeno Mizser.

13. Rock Plant Schedule

With concentration of cooling machine manufacture at the Rock Plant, it will be necessary to transfer boiler manufacturing elsewhere. Target date for completion of new schedule. 1 March 1949. In charge: Jeno Mizser.

14. Boiler Manufacture

Boilers are now manufactured at the Ganz shipyard, at the Rock Plant, and at the Lang Plant. The whole question of boiler manufacture must be reconsidered in setting up the working schedule of the Rock Company. Target date: 15 March 1949. In charge: Jeno Mizser.

15. Lang Plant Schedule

The Lang Plant has been manufacturing a very large variety of products in comparison with other enterprises. The following items will be dropped from their line: power looms, machine tools, printing machines, gas engines, and motor-vehicle engines. On the other hand, activity has been expanded in certain other branches of manufacture, with total production for 1949 as follows (in forints):

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Boilers	approx	24,000,000
Steam turbines	"	25,000,000
Stationary Diesels	"	8,000,000
Chemical plant equipment	"	10,000,000

Target date: 15 December 1949. In charge: Jeno Mizser.

16. Compressors

Compressors are now being made by Ganz, MAVAG, Lang, and other smaller plants. The question of compressor manufacture scheduling will be taken up in connection with the Lang Plant schedule. Target date: 10 March 1949. In charge: Jeno Mizser.

17. Machinery Repair

Much worn-out machinery is to be repaired by plants to be designated by the General Machine Industry Center. Target dates: 1 March 1949, 25 March 1949, and 15 April 1949. In charge: Ferenc Farago.

18. The Csonka Plant

Since its nationalization, this plant has come under the General Machine Industry Center. The plant has been scheduled to manufacture small benzine and petroleum motors, as well as the Imo. Bo. [?] Diesel motors. Target date: 1 March 1949. In charge: Jeno Mizser.

19. MITESZ Plant

The MITESZ plant has been put under the General Machine Industry Center. According to preliminary work schedules, the plant will make driving gears, reduction gears, and other gears. This plant will be organizationally joined with the Csonka plant. Target date: 1 March 1949. In charge: Jeno Mizser.

20. Textile Machines

The manufacture of textile machines has been assigned to Magyar Waggon and taken away from the Hofherr and Lang plants. The plant will probably limit its production to component parts in 1949 and will go over only to the production of complete units in 1950. After that date, annual production will be approximately 60 million forints. Target dates: 10 January 1949, 20 January 1949, and 1 June 1949. In charge: Dr Ferenc Farago.

21. Machine-Tool Manufacture

Until now, Manfred Weiss has only produced machine tools to meet requirements of Heavy Industry Center enterprises. Data is being assembled to plan for expanded production so as to meet other domestic requirements and to produce for export. Domestic requirements are estimated at 100 million forints. Exports will amount to 20 percent of that figure at first and will increase later. Target dates: 10 March 1949 and 15 April 1949. In charge: Ferenc Farago.

22. Pump Manufacture

In addition to small nonnationalized enterprises, the Ganz, MAVAG, and Mazalan plants are all engaged at present, in the manufacture of pumps. All plants make a great variety of pumps and similar types are made in many of the plants. Even before a nationalized plant is expressly designated to make pumps, it would be desirable to bring order into the production schedules of the various plants. Target date: 15 June 1949. In charge: Jeno Mizser.

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23. Hubert and Sigmund Plant

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No suitable and rational schedule has yet been worked out for the heat treatment shop. Target date: 20 March 1949. In charge: Frigyes Lajta.

24. Electrode Manufacture

Electrodes are now being made at Rima-Salgotarjan, Manfred Weiss, and at Diosgyor. The quality of the output is not satisfactory and manufacture at three locations cannot be justified. Target dates: 1 May 1949 and 15 May 1949. In charge: Endre Uhreczky.

Other domestic cooperation problems:

1. Cooperation as regards surplus tools and equipment
2. Setting up working schedules for various plants engaged in making electrical items. Target date: 1 June 1949. In charge: Endre Uhreczky.
3. Russian enterprises within the country -- these plants make electrical and consumer goods, duplicating production of other plants in some instances. Preliminary discussions have already been started regarding production schedules. Target date: 15 June 1949.
4. Clarification of problems relating to cooperation between craftsmen's associations. Target date: 1 March 1949. In charge: Dr. Ferenc Farago.

Target dates for foreign cooperation are as follows:

Review of cooperational work previously begun: 20 February 1949.

Selection of appropriate organizations for foreign cooperation: 25 March 1949.

Czechoslovak and Polish cooperation discussions and preparation of producing schedules: 1 Mar 1949:

In charge: Dr Farago and F. Lajta

Signed: Juhasz

II. MANUFACTURING AND PRODUCT-MODERNIZING SECTION

This newly organized section will continue modernization work begun by other sections and will formulate new tasks on the basis of an orderly examination of the situation.

Target dates for taking over projects from other sections: 31 January 1949, 5 February 1949, and 15 March 1949. In charge: Laszlo Takats and Gyula Magirius.

Target dates for specific projects taken over from other sections are as follows:

1. Model of Ganz FO type electric motor: 31 January 1949

This will be an improvement over the FI type motor which is too heavy and has other construction deficiencies which must be eliminated to make it more salable on the world market.

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2. Final recommendations of the committee on modernization of screw factories: 1 February 1949

Equipment of all Hungarian screw factories is antiquated and must be replaced to reduce the cost of the finished product. In charge: Laszlo Takats.

3. Model of Lampart No 160 lathe: 28 February 1949

This is the newest and most modern lathe on the domestic market. The lathe is being made with most up-to-date machine-tool construction principles in mind. In charge: Andor Hornung.

4. Tractors with four-cylinder Steyr motors: 1 April 1949

The one-cylinder motor tractors are unsatisfactory and are to be replaced by the Steyr Diesel motor tractors. This will raise the production cost but it will also increase export possibilities. In charge: Andor Hornung.

5. Model of No 30 Manfred Weiss industrial sewing machine: 31 December 1948

This industrial type of sewing machine is being worked out to meet requirements of the export department, as well as those of the domestic market. The Pfaff-type machine was selected for development to avoid license problems. In charge: Gyula Magirus.

6. Model of 123-cubic-centimeter Manfred Weiss motorcycle: 31 March 1949

This model will be suitable for export if changes are made according to recommendations of the export department. In this connection, possibilities of purchasing the Puch license is also being considered at this time. In charge: Gyula Magirus.

7. Model of 100-cubic-centimeter motorcycle: 15 April 1949

Numerous complaints show the need for strengthening the driving chain of the present model. In charge: Gyula Magirus.

8. Model of stamped lathe housing: 31 January 1949

The cold-working department initiated this innovation in order to overcome the disadvantages of gray cast-iron housings now being used. Monthly requirements for domestic needs and for reparations are 100-150 units. In charge: Gyula Magirus.

Target dates have not yet been set for the following: Lang GML 674 Diesel motor for vehicles, Ganz FL-type electric motor, Lampart 350 lathe, Hungarian Steel Plant compressed air lathe, and MAVAG vertical lathe. In charge: Laszlo Takats.

Preliminary work in product modernization involves a compilation of pertinent factors, selection of items to be modernized, establishment of priorities, selection and procurement of selected foreign prototypes, and preparation of models. Target dates for various phases of the product modernization plan range from 15 January 1949 to 30 June 1949. In charge: Laszlo Takats, Gyula Magirus, and Andor Hornung.

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The most important problems in connection with shipment of materials is the elimination of bottlenecks at Diosgyor, Ozd, Ganz Shipyard, Ganz Car Building Plant, Magyar Waggon at Gyor, MAVAG in Budapest, Ganz electrical plant, and at Ceepel. The problem of loading, unloading, and storage facilities is closely related to the shipment of materials. Target dates have been set for receiving proposals for solving outstanding shipping problems.

Signed: Bogati

III. RATIONALIZING SECTION

A. Functions

1. Further development of the activities of existing technical divisions in enumerated enterprises and organization of such divisions in plants which now do not have them.
2. Production planning, including time studies and bonus payments.
3. Production program and target date.
4. Quality control.
5. Other duties in the field of standardization.

B. General Work Plan

1. Technical divisions will be organized in individual plants and fitted into their respective organizations.
2. The technological and rationalization sections of the various industry centers will direct, control, and aid in the further development of the technical divisions established and to be established in the enterprises.
3. Existing local production-planning offices will take over a major part of the planning, plan control, and plan supervision in enumerated heavy-industry enterprises and new production-planning offices will be established in other larger manufacturing plants and foundries. Equipment and manpower controls are to be established as part of production planning.
4. Time studies will be made and bonus systems established for enterprises of the Metallurgy Center and Heavy Machine Industry Center. An educational course will be organized to familiarize personnel with this program.
5. Technical supervision of production will be administered by more adequate waste and spoilage controls, by adoption of uniform delivery and receipt procedures, and by better quality control based upon theoretical investigations and studies.
6. The industry centers will cooperate with the Technical Administrative Division in setting up new indexes for wage determination.

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7. Local program and target-date offices will be established and trained in performance of their duties. Publications will acquaint personnel with fundamentals of scheduling, and periodic conferences will clarify existing problems.

8. The centers will organize discussion groups and otherwise cooperate with the Hungarian Standards Institute in working out Hungarian National Standards (HOSs). Standardization within local plants will be coordinated by the centers through supervision of local discussion groups. Intraplant standardization will be based on established principles, and standards will be properly evaluated before being adopted for general use.

9. The task of working out and writing up specifications is delegated to the various industrial centers. Specifications have already been prepared for 61 items of manufacture and the heavy industry administration will complete the six specifications which have received final approval.

Target dates range from 31 January to 30 June 1949. Individuals in charge of various phases of the rationalization plan are: Geza Holitscher, Gyorgy Szasz, Lajos Balint, Pal Mihalyfi, Gergely Gyulai, Laszlo Safar, Gusztav Hubert, Emil Jako, and Tihanyer Cttlik.

Signed: Gyorgy Hajos

IV. NORM-ESTABLISHING SECTION

A. Functions

1. Supervision of the time-study program.
2. Practical direction and supervision of norm instruction and coordination of norms in the plants.
3. Establishment of norms for collective contracts and supervision of their application.
4. Examination and revision of norms set up for enterprises and for industrial centers.
5. Approval of norms and indexes.
6. Establishment and supervision of wage policy.
7. Collection, systematization, and registration of norms.
8. Preparation of norm registers.
9. Working out national norms on the basis of assembled data and operating results.
10. Maintaining liaison with the Department of Standards, the Ministry of Industry, appropriate organs of the Hungarian Workers Party, the Technical Council, Trade Unions, National Wage Board, Institute of Labor Science, Heavy Industry Administration, Rationalizing Section, and various other organs, on all questions relating to norms.

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B. Other Duties

1. The directors of the section also serve as norm representatives of the Heavy Industry Administration.
2. Norm-Establishing Section representatives see to it that the norms are carried out. Representatives are divided according to technological branches.
3. The administrative section records the approved norms, and collects and classifies them according to technological branches. This section also records the results of wage relations.

C. Operation

The section analyzes all norms before approval to see that they do not conflict with collective contracts and that they do not violate principles of justice. Norms are examined according to procedure established by the Rationalizing Section of the Heavy Industry Administration.

Norms are submitted for approval in the following manner: the time-study office of each enterprise submits its time-study reports to the appropriate industrial center for review. The center reviews the time study according to the established principles. Only those proposals which the center deems proper are forwarded to the Norm-Establishing Section. The section reviews the proposals and gives its approval to those which it considers proper.

D. Work Plan

The work plan consists of two parts:

1. Permanent and continuous activities which are described above. Target dates are not given for the permanent and continuous activities included in the work plan.
2. Concrete work projects and their target dates are as follows:
 - a. Discussion, coordination, and clearance of the time-study program with the Rationalizing Section -- 30 January 1949.
 - b. Preparation of a norm register broken down according to industrial branches, technological divisions, and work schedule or specialty, using a decimal numerical system -- 15 March 1949.
 - c. Summarizing and systematizing the work norms used in iron, steel and metal foundries in order to prepare a norm for foundries on a national level -- 15 March 1949.
 - d. Preparation of precise and uniform norms for most frequent forge operations -- 31 March 1949.
 - e. Preparation of uniform norms for milling operations. 30 April 1949.
 - f. Preparation of uniform and accurate norms for machine-building and tool-making -- 30 June 1949.
 - g. Preparation of norms for model cabinetmakers -- 15 May 1949.

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h. Preparation of norms for structural ironworkers -- 31 March 1949.

i. Setting up a temporary bonus system for special endeavor until the Rationalizing Section works out a more scientific system -- 1 February 1949.

Signed: Lipot Horniak

V. RESEARCH AND PATENT SECTION

A. General Work

1. Collecting the results of experiments conducted by plants, reviewing the results, and formulating decisions as to their continuation. Target date: 15 November 1949

2. Tabulation of licenses held and applied for by the various plants and evaluation of use to which they are being put. Target date: 28 November 1949

3. Publication of foreign patents and results of scientific research of interest to heavy industry, in the Monthly Review.

4. Preparatory work for the organization of the Central Research Institute and the drawing up of the Institute's principles of operation. Target date: 30 March 1949

Note: Dates shown for the above four items are target dates for completion. Dates for all other items are starting dates.

B. Problems Relating to Manufacture of Pig Iron

5. Devise a more economical method for the processing of pyrite for use in iron smelting. Approximately 70,000 tons of pyrite (piritpork) already have been accumulated. Target date: 1 January 1949.

6. Devise an economical method for enriching the 150,000 - 180,000 tons of red mud (vorcsiszop) accumulated from alumina manufacture for use in making iron. Target date: 1 October 1949.

7. Conduct laboratory experiments to devise economical ways to smelter ores of low iron content. These ores come from Trans-Danubia and Rudabanya.

C. Problems Pertaining to Manufacture of Steel

8. Conduct experiments in converted steel and pig-iron manufacturing, for quicker cooling and reduced production costs. Target date: 15 March 1949.

9. Conduct desulfurizing experiments with cerium steel. Target date: 1 March 1949.

10. Conduct research on the use of domestic raw materials for carbon electrodes. To a large extent, carbon electrodes could have been substituted for the 500 - 600 tons of graphite electrodes used in electric steel furnaces this year. Target date: 1 January 1949.

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11. Establish standards and manufacturing procedures for materials used in turbine foundations. Target date: 15 October 1949.

12. Complete experiments on the manufacture of amalgamated wire. Target date: 1 February 1949.

13. Improve the quality and increase the quantity of high-temperature steel manufacture. Target date: 15 February 1949.

14. Perform experiments to improve the quality of metals used in transformers. Target date: 1 October 1949.

D. Problems Relating to Foundries

15. Conduct experiments in the use of cerium in processing cast iron. The strength of cast iron may be tripled by use of cerium. Target date: 1 January 1949.

16. Complete experiments on kokila foundry moulds to improve and economize mass production of these moulds. Target date: 15 March 1949.

17. Introduction of centrifugal moulding so as to improve smaller iron and steel castings. Target date: 1 April 1949.

18. Conduct experiments in the manufacture of synthetic sand. There is too much waste and expense with sands now in use. Target date: 25 February 1949.

19. Devise a systematic procedure in the preparation of core-binding material. Target date: 15 March 1949.

20. Experiment with new methods of cleaning castings by high-pressure water and by electrolytic methods. Present methods are too slow and expensive. Target date: 1 April 1949.

21. Conduct research work on tempered casting. Target date: 1 March 1949.

E. Problems in Temperature Control

22. Use of high-frequency patented wire recorder as a more economical means of temperature control. Target date: 1 January 1949.

23. Use of high-frequency temperature control for special steels. Target date: 1 May 1949.

24. Use of high-frequency methods in surface tempering. Target date: 1 March 1949.

25. Use of high frequency in welding hard metal blanks. Target date: 15 March 1949.

26. Use of high frequency in tempering tools. Target date: 15 May 1949.

27. Examine cementing materials with a view toward their improvement and conduct experiments toward obtaining new cementing materials. Target date: 15 May 1949.

28. Investigation of diffusion of metals by gases. Target date: 1 March 1949.

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F. Problems Pertaining to Welding

29. Improve present-type welding rods, and make use of domestic materials in the manufacture of electrodes. Target date: 1 January 1949.

30. Conduct further experiments on three-phase welding. Target date: 1 January 1949.

31. Investigate the Union Holt method of welding. This welding system is now unknown in this country. Target date depends upon the procurement of the machine.

G. Problems on Ceramic Metals

32. Use of pressure machines in making small electrodes. Target date: 1 May 1949.

33. Making of self-lubricating bearings by the powder-metallurgy process. Target date: 1 October 1949.

34. Conduct experiments in the manufacture of bronze brushes. Target date: 1 April 1949.

35. Manufacture of small consumer goods by the powder-metallurgy process. Target date: 1 January 1949.

36. Conduct experiments in pulverizing sponge iron. This would provide cheap raw material for the above stated ceramic metals. Target date: 15 March 1949.

H. Problems Relating to Cold-Metalworking Activities

37. Conduct experiments in spark [szikra] milling. Target date: 15 January 1949.

38. Use of electrolytic refining for the above-mentioned experiments to effect an economical solution of this problem. Target date: 1 April 1949.

39. Study of proper use of machine tools in connection with the various cold-metalworking activities, including the effect of vibration, etc. Target date: 15 October 1949.

40. Examination of the dynamics of materials used for tools. Target date: 1 January 1949.

J. Problems Relating to Testing of Materials and Preventing Breakdowns.

41. Conduct experiments to improve the quality and reduce the cost of component parts used for automobiles and tractors. Target date: 15 March 1949.

42. Conduct performance tests on axles. Target date: 15 April 1949.

43. Conduct research into use of supersonic methods in examination of large steel castings for structural deficiencies.

44. Research in testing and examining metals by the electro-induction method. This would provide a mass method for revealing internal defects in metals. Target date: 1 March 1949.

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K. Problems of Electrical Industry **CONFIDENTIAL**

45. The Ganz Electrical Research Department will study problems of the electrical industry, including a 15-point program dealing with magnetics. Target date: 1 April 1949.

L. Caloric Experiments

46. Conduct experiments to improve the quality of gas. Conduct heating fuel experiments so as to provide the metallurgical industry with better and more economical fuel. Target date: 1 October 1949.

47. Conduct preliminary and synoptical experiments on gas turbines. To date, Hungarian industry is totally inexperienced in gas turbines. Target date: 15 April 1949.

48. Continue experiments on the Szikla-Rezinck method of firing. Target date: 1 June 1949.

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